Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

loading a substrate into a reaction furnace,

~~performing in the reaction furnace a processing to the substrate,~~processing the substrate in the reaction furnace,

performing~~, under a state that the substrate after the processing has been accommodated in the reaction furnace, a 1st purge by performing an evacuation~~ a 1st purge in a state of the processed substrate in the reaction furnace by

evacuating an inside of the reaction furnace,

supplying ~~and a supply of~~ an inert ~~gas to~~ gas into the reaction furnace ~~by more than at least one time,~~ one or more times,

thereby changing a pressure in the reaction furnace,

unloading the processed substrate from the reaction furnace, and ~~after the processing out of the reaction furnace, and~~

~~performing ,after the substrate after the processing has been unloaded out of the furnace, before a substrate to be processed next is loaded into the reaction furnace, and under a state that at least a product wafer is not accommodated in the reaction furnace,~~performing, after the processed substrate is unloaded from the reaction furnace and before another substrate is loaded into the reaction furnace, a 2nd purge by ~~performing the evacuation~~

evacuating the inside of the reaction furnace,~~and the supply of the~~

supplying ~~inert gas to~~ the inert gas into the reaction furnace ~~by more than at least one time,~~ one or more times,

thereby changing the pressure in the reaction furnace,

wherein amount of change in the pressure in the reaction furnace in the 2nd purge step is larger than amount of change in the pressure in the reaction furnace in the 1st purge step.

~~wherein a pressure change quantity in the reaction furnace per unit time in the 2nd purge step has been made larger than a pressure change quantity in the reaction furnace per unit time in the 1st purge step.~~

2. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein the ~~pressure change quantity in the reaction furnace per unit time~~ amount of change in the pressure in the reaction furnace in the 2nd purge ~~step has been made larger~~ is larger than 30 Pa/sec and 500 Pa/sec or smaller.

3. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein a difference between a maximum pressure and a minimum pressure in the reaction furnace in the 2nd purge ~~step has been made larger~~ is larger than a difference between a maximum pressure and a minimum pressure in the reaction furnace in the 1st ~~purge step.~~purge.

4. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein, in the 1st ~~purge step~~ purge and the 2nd ~~purge step,~~ purge, the evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace are repeated ~~by plural~~ 2 or more times, and a cycle of the evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace in the 2nd purge ~~step has been made shorter~~ is shorter than a cycle of the evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace in the 1st ~~purge step.~~purge.

5. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein, in the 1st ~~purge step~~ purge and the 2nd ~~purge step,~~ purge, the

evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace are repeated ~~by plural~~ 2 or more times, and a cycle number of the evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace in the 2nd purge ~~step has been made more~~ is greater than a cycle number of the evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace in the 1st ~~purge step.~~purge.

6. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein, in the 1st ~~purge step~~ purge and the 2nd ~~purge step,~~ purge, the evacuation of the inside of the reaction furnace and the supply of the inert gas into the reaction furnace are repeated ~~by plural times,~~ 2 or more times, and

in the 1st ~~purge step~~ purge, the evacuation of the inside of the reaction furnace and the supply of the inert gas ~~the inert gas is supplied~~ into the reaction furnace are performed under a state that an exhaust valve, ~~which has been~~ which is provided in an exhaust line for exhausting ~~an inside~~ the inside of the reaction furnace, ~~has been opened,~~ is open, and

in the 2nd ~~purge step~~ purge the evacuation of the inside of the reaction furnace is performed under the state that the exhaust valve is open and the supply of the inert gas ~~is supplied~~ into the reaction furnace is performed under a state that the exhaust ~~valve has been~~ valve is closed.

7. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein the 1st ~~purge step~~ purge is performed under a state that a support, which has supported the substrate, has been accommodated in the reaction furnace, and the 2nd ~~purge step~~ purge is performed under a state that the support, which does not support at least a product substrate, has been accommodated in the reaction furnace.

8. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein the 1st ~~purge step~~ purge is performed under a state that a

support, which has supported the substrate, has been accommodated in the reaction furnace, and the 2nd ~~purge step~~ purge is performed under a state that the support, which has supported a dummy substrate without supporting a product substrate, has been accommodated in the reaction furnace.

9. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein in the substrate processing step a gas containing boron is used.

10. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein in the substrate processing step a boron-doped silicon film is formed on the substrate.

11. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein in the substrate processing step ~~monocilane~~ monosilane (SiH_4) and boron trichloride (BCl_3) are used.

12. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the 2nd purge step is performed each time in every time the processing to the substrate is performed.

13. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

charging a substrate to a support,

loading the support ~~having been~~ charged with the substrate into a reaction furnace,

processing the substrate ~~performing~~ in the reaction ~~furnace a processing to the substrate,~~ furnace,

unloading the support, which ~~has supported~~ supports the processed substrate ~~after the processing,~~ from the reaction furnace,

discharging the processed substrate from the support after the ~~support, support has been unloaded, the substrate after the processing from the support,~~which supports the processed substrate is unloaded from the reaction furnace,

loading~~, after the substrate after the processing has been discharged,~~ the support into the reaction furnace without charging ~~at least~~ a product substrate to the support, after the discharging the processed substrate from the support, and

~~performing a purge by performing,~~ purging, under a state that the support not charged with ~~at least~~ the product substrate has been accommodated in the reaction ~~furnace, an evacuation~~ furnace, by

evacuating an inside of the reaction furnace, ~~and a supply of~~

supplying an inert ~~gas to~~ gas into the reaction furnace,~~furnace by more than at least one time~~

thereby changing a pressure in the reaction furnace, ~~without introducing a reactive gas into the reaction furnace.~~wherein, in the purging step, the evacuation of the inside of the reaction furnace is performed under a state that an exhaust valve, which is provided in an exhaust line for exhausting the inside of the reaction furnace, is open, and the supply of the inert gas into the reaction furnace is performed under a state that the exhaust valve is closed.

14. (Currently Amended) A method of manufacturing a semiconductor device according to claim 13, wherein the ~~purge~~ purging step is performed under a state that a dummy substrate ~~has been~~ is supported without supporting the product substrate to the support.

15. (Original) A method of manufacturing a semiconductor device according to claim 13, wherein the purge step is performed each time in every time the processing to the substrate is performed.

16. (Currently Amended) A method of manufacturing a semiconductor device according to claim 13, wherein ~~a pressure change quantity~~ the amount of change in the pressure in the reaction furnace ~~per unit time~~ in the ~~purge step has been made~~purging step is larger than 30 Pa/sec and 500 Pa/sec or smaller.

17. (Withdrawn-Currently Amended) An apparatus for processing a substrate, comprising:

a reaction furnace for processing the substrate,

a gas supply line for supplying a gas into the reaction furnace,

a loading/unloading device for loading and unloading the substrate into and from the reaction furnace, and

a controller which controls so as to perform, under a state that the substrate after the processing has been accommodated in the reaction furnace, a 1st purge by performing an evacuation and a supply of an inert gas to the reaction furnace ~~by more than at least~~ more than one time, which controls so as to perform, after the substrate after the processing has been unloaded out of the reaction furnace, before a substrate to be processed next is loaded into the reaction furnace, and under a state that at least a product substrate is not accommodated in the reaction furnace, a 2nd purge by performing the evacuation and the supply of the inert gas to the reaction furnace ~~by more than at least~~ more than one time, and additionally which controls such that a pressure change quantity in the reaction furnace per unit time in the 2nd purge is made larger than a pressure change quantity in the reaction furnace per unit time in the 1st purge.

18. (New) A method of manufacturing a semiconductor device, comprising the steps of:

charging a substrate to a support,

loading the support charged with the substrate into a reaction furnace,

processing the substrate in the reaction furnace,

performing a 1st purge in a state of the processed substrate in the reaction furnace by evacuating an inside of the reaction furnace and the supply of the inert gas into the reaction furnace under a state that an exhaust valve, which is provided in an exhaust line for exhausting the inside of the reaction furnace is open, and the supply of the inert gas into the reaction furnace is performed under a state that the exhaust valve is closed, and changing a pressure quantity in the inside of the reaction furnace,

unloading the support which supports the processed substrate from the reaction furnace,

discharging the processed substrate from the support after the support, which supports the processed substrate is unloaded from the reaction furnace,

loading the support into the reaction furnace without charging a product substrate to the support, after the discharging the processed substrate from the support, and

performing, after the processed substrate is unloaded from the reaction furnace and before another substrate is loaded into the reaction furnace, a 2nd purge by evacuating the inside of the reaction furnace under a state that the exhaust valve is open and the supply of the inert gas is performed under a state that the exhaust valve is closed, thereby changing a pressure in the reaction furnace,

wherein in both purging steps, the evacuation of the inside of the reaction furnace is performed under a state that an exhaust valve, which is provided in an exhaust line for exhausting the inside of the reaction furnace, is open, and the supply of the inert gas into the reaction furnace is performed under a state that the exhaust valve is closed.